

NONPOINT SOURCE TIMES

Volume 11, Issue 3

Summer 2002

Clam Flats Reopen After 10 Year Closure

Local clam diggers are pleased to have more area to harvest clams. The flat has become a magnet for diggers in the region. In September 2001, the Maine Department of Marine Resources (DMR) reopened a 113 acre clamflat in the town of Sullivan. This productive clam flat harvest area had been closed to harvest for well over ten years due to bacteria contamination. The clam flats are located in Flanders Bay in the town of Sullivan. DMR estimates that the value of the clams in the flat at \$2,500 per acre per year. The clam flat has the potential to inject more than \$250,000 annually into the local economy!

The clam flat reopening was made possible in large part due to a Nonpoint Source Pollution Control (319) project. The landowner cooperated with the Hancock County Soil & Water Conservation District and the Natural Resources Conservation Service to implement a conservation plan for the farm to fence grazing animals out of a stream to improve its water quality. The project fenced areas of grazing lands, which had previously permitted cows free access to



(Continued on page 2)



Recipe for Successful Outreach

Over the last few years I have been lucky enough to attend a number of national meetings and workshops related to public outreach. A number of the speakers and presenters at these various venues have advocated the use of social marketing techniques in one form or another. I have attempted to boil this information into a two page summary in order to help all of us get 'smarter' and more effective at our outreach efforts. As we all know this is becoming even more critical as funding once again tightens.

All the various presenters began by emphasizing that raising awareness of an issue would not necessarily lead to a

(Continued on page 5)

Inside This Issue

Watershed Improvement Financial Assistance Partnership (WIFAP)	2
Fluvial Geomorphology	3
Colorado Passes Watershed Protection Fund	4
Stormwater Phase II - Update	4
New Cutting Standards	6
Smart Boat Tips	8
Calendar & Resources	9

New Report Released:
 "2000-2001 Maine Forest Service Report
 on Forestry BMPs Use and Effectiveness
 in Maine", 3/14/02
 (16 pages)
 available in pdf at
<http://www.state.me.us/doc/mfs/mfshome.htm>

(Continued from page 1)

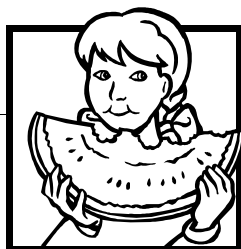
streams for drinking water. Livestock waste either directly dropped into the stream or was carried by stormwater runoff into the stream. This was a significant source bacterial contamination to the shellfish beds. The NPS project: protected over 2,000 feet of stream from grazing animals; provided 2,000 feet of fencing for four paddocks, well drilling and provisions for alternate watering sources for the animals. Also, six eroding sites on the farm were stabilized.

The \$31,900 project was made possible by funding from the landowner, Maine DEP / and EPA 319 Program, the Maine Department of Agriculture and the USDA- Natural Resources Conservation Service. FMI Contact David Power, Hancock County SWCD

Northern Maine Children's Water Festival

The NMCWF is a biannual event aimed at introducing approximately 900 5th grade students and their teachers to water related issues. Students and teachers attend hands-on classroom presentations, the exhibit hall and the very popular Drippial Pursuit (a quiz game where 2 schools compete against each other on water issues).

This year is an event will be held Tuesday October 15th at the University of Maine's Orono Campus. Volunteers are always needed and welcomed. If you would like to volunteer please contact Barb Welch at 287-7682 or barb.welch@state.me.us or Kathy Hoppe at 764-0477 or kathy.m.hoppe@state.me.us



Watershed Improvement Financial Assistance Partnership

The *Watershed Improvement Financial Assistance Partnership* (WIFAP) provides financial assistance to help Maine Soil and Water Conservation Districts conduct nonpoint water pollution control projects to restore or protect lakes, streams, or coastal waters that are polluted or considered threatened. WIFAP funding is from the Environmental Protection Agency (\$240,000) administered by the Maine Department of Environmental Protection (MDEP) and State of Maine general fund (\$160,000) administered by the Maine Department of Agriculture, Food, & Rural Resources (DAFRR). EPA-New England and the Maine Association of Conservation Districts (MACD) are cooperating partners. Maine's 16 Districts joined together into 4 watershed regions for this program. Annually each region is eligible to receive a grant of \$100,000.

Southwestern Conservation Alliance: Androscoggin, Cumberland, Oxford, York
 Mid-Maine Watersheds Coalition: Franklin, Kennebec, Knox-Lincoln, Somerset, Waldo
 Aroostook Watersheds: St. John Valley, Central Aroostook, Southern Aroostook
 Downeast - Penobscot Watersheds: Hancock, Penobscot, Piscataquis, Washington

For more information on the WIFAP projects contact Norm Marcotte at 287-7727 or norm.g.marcotte@state.me.us

Online Slideshow Presentation: "Why Watersheds?"

The Center for Watershed Protection is pleased to announce the latest addition to their family of popular slideshow presentations: "Why Watersheds?" Designed to bridge the gap for people who may not understand the whys and hows of watershed protection, this introductory presentation explains what a watershed is, how development impacts watershed health, and why protecting watersheds is critical. Included are steps that planners, watershed groups, and regular citizens alike can take to protect our own water resources. You can view "Why Watersheds?" on our website at <http://www.cwp.org>. Watch for it to be available on CD-ROM later this month.

Fluvial Geomorphology (say what?)

Fluvial geomorphology is the science that assesses the shape and form of watercourses (particularly streams and rivers) and the associated contributing physical processes. In addition, this science applies natural channel design for restoring or rehabilitating channel reaches and provides integration with aquatic biology to enhance habitat or community structure and provide a more comprehensive understanding of channel dynamics.

A number of agency people around the state have become interested in fluvial geomorphology and formed an inter-agency workgroup. The Maine Inter-Agency Fluvial Geomorphology Workgroup consists of representatives from various state and federal agencies. The Workgroup was established to assist with the identified public need and a growing constituency for watershed protection, enhancement, and restoration. The basic goals of the workgroup are:

- Create a partnership for stream management in Maine and develop an informal partnership of resource managers and watershed constituents.
- Institute an informal project review committee to provide input on aquatic habitat or bank stabilization projects
- Form databases to support stream, river corridor and watershed protection, management, restoration and public education programs.
- Develop an accepted state-wide riverine corridor assessment protocol for assessing the physical and habitat characteristics of streams
- Establish a network of stream restoration demonstration projects throughout Maine. These demonstration projects will increase public understanding of fluvial processes and management programs at state and local levels.

*"the science that
assesses the shape
and form of water
courses"*

The Workgroup has initially identified that there is a lack of understanding regarding how applying fluvial geomorphologic principles can be used in activities such as watershed planning, erosion assessments, channel restoration, analysis of stream crossing structures, assessing channel realignments, stormwater management, and any other activities that affect stream habitat and mechanics.

Initially the Workgroup is addressing the educational need. Training in stream corridor assessment is being presented as a series of workshops, emphasizing initially the concept of fluvial geomorphology and the value of its implementation. The first workshop (June 2002) targeted a broad cross-section of state and federal agency staff, consultants, non-government organizations and watershed managers. The intent was to introduce the process of stream assessments and relate their potential application in Maine. It is expected that this workshop will spawn a smaller, more focused group interested in pursuing further technical training. Future workshops will focus on both the applied and design components of stream assessments. A second workshop is now being planned for September of 2002. This session will focus on detailed assessments and application techniques. The Workgroup is anticipating there will be a demand for even more training in detailed design and application techniques in stream assessments and restoration than can be provided in the two workshops being presented this year. Any additional training sessions will not occur until 2003.

(Continued on page 7)

Stream Assessments in Lake Watershed Training

Stream Assessments in Lake Watersheds, August 20, 2002 (tentative). Auburn, ME. The Maine Stream Team Program (MSTP) will collaborate with the Volunteer Lake Monitoring Program (VLMP), the Auburn Land Lab, and the Lake Auburn Watershed Protection Commission to conduct an information and training workshop on stream assessment surveys in lake watersheds. This event will provide attendees with tools and skills to be used for lake protection. The approach will focus on streams in lake watersheds as indicators of water quality.

The day-long session will be open to teachers, lake association representatives, and others. The flexible program will provide attendees with information and options to consider for planning and organizing projects to protect local lakes and streams. Participants will receive sufficient information at the workshop to provide the groups they represent with the basics for planning a local project.

Registration is open to the public, but enrollment will be limited. For more information, or to register for the workshop, please contact Patty Gaudreau at the Auburn Land Lab [email: ; tel: (207) 783-4563] or the MSTP at 207-822-6317

Colorado Passes Watershed Protection Fund

(From: Friends of Colorado's Watersheds, Rivers and Streams)

In a great week for Colorado's watersheds and rivers, SB-087 was passed by the House and has now moved on to the Governor's office for signing.

This bill creates the Colorado Watershed Protection Fund and this Fund will now be added to the Colorado Tax Refund Checkoff Program. Last year the six groups in this program raised over \$1,900,000.

The bill was initiated by the Colorado Watershed Assembly (CWA) which serves as the state and regional voice for more than 40 collaborative based watershed protection organizations in the state of Colorado.

The Assembly has been looking for ways to create new funding sources for watershed coordinators and their group's matching funding needs. This newly formed Colorado Watershed Protection Fund will be used to finance a new competitive grant program to protect and restore watersheds, rivers and streams.

Since each watershed group has their own public outreach program, it is anticipated that publicity for the new fund will be extensive and donations will be brisk. Last year the five main groups in the program raised approximately \$280,000 to \$590,000 each - all without any substantial fundraising costs.

The Bill will also give the Assembly the opportunity to work more closely with the Colorado Water Conservation Board and the Colorado Water Quality Commission which are the state agencies that will receive and distribute the funding.

Historically, the Water Conservation Board handles issues dealing with water quantity and the Commission has direct responsibility for water quality issues. The Assembly is now legislatively mandated to work with both agencies to administer the moneys generated by the Fund and to create the criteria for the new competitive grant program.

This is a MAJOR victory for Colorado's watershed groups as well as the watersheds, rivers and streams in the state.

The watershed groups can look forward to better funding, more political influence and an expanded statewide role in protecting our irreplaceable natural resources.

"Green-Based" Urban Growth: Next Wave of Environmentalism

D.L. Parsell, National Geographic News, April 22, 2002. "After it was introduced 30 years ago, the phrase 'think globally, act locally' became an environmental rallying cry for an entire generation. Yet the grand vision it inspired-of communities mobilizing to take responsibility for the health of the planet starting in their own backyards-remained more a slogan than reality. Now, local environmental activism is getting a new lease on life, sparked by a public backlash against runaway and poorly planned development of cities and towns, widely known as "sprawl." . . . Apart from frustration with traffic congestion and aesthetic blight, there's mounting concern about increased pollution, strains on local water supplies, and the rapid loss of trees, wetlands, farmland, wildlife habitats, and open spaces. . . ." For the complete National Geographic article visit http://news.nationalgeographic.com/news/2002/04/0422_020422_landplan.html

Stormwater Phase II Community Update

With the release of the 2000 Census the number of communities in Maine subject to Stormwater Phase II regulations has increased from 20 to 35. The following is a list of the towns subject to complying with Phase II by March 2003:

Auburn	Milford*
Bangor	North Yarmouth*
Berwick	Old Orchard Beach*
Biddeford*	Old Town
Bradley*	Orono
Brewer	Orrington*
Cape Elizabeth	Penobscot Indian Island**
Cumberland *	Portland
Eddington*	Sabatius
Eliot	Saco*
Falmouth	Scarborough
Freeport*	South Berwick
Gorham	South Portland
Hampden*	Veazie
Kittery	Westbrook
Lewiston	Windham*
Lebanon*	Yarmouth*
Lisbon	

*Added to the list of municipalities based upon the 2000 census. No municipalities were removed based upon the 2000 census

**Administered by U.S. Environmental Protection Agency
The following municipalities are entirely located within urbanized areas: Bangor, Brewer, Lewiston, Portland, South Portland, Veazie, Westbrook. The remaining municipalities are partly within and partly outside urbanized areas.

(Continued from page 1)

change in behavior. For example, merely making someone aware of the effect phosphorous has on lake water quality would not necessarily lead them to use phosphorus free fertilizer nor to do a soils test and fertilize based on the results. Rather, one needs to persuade and make it easy for the target audience to abandon the old behavior in favor of the new behavior.

To develop a campaign or effort to change behavior appears to follow a fairly predictable and consistent process or recipe. And although varying slightly among the experts, can be summarized into one recipe. The following is my compilation from the following experts: Doug McKenzie-Mohr, Dr. Alan Andreasen, David Gershon, and Mary Maresters.

The Recipe:

1. Specifically identify the behaviors/activities people could be involved in, the behaviors you would like them to do. It is important to be specific simply saying lawn care is not targeted enough; rather specify application of fertilizer.
2. Then identify the impact each of these activities has on water, (if possible use literature/studies/reports). Look at collective impact; what percent of the target audience is likely to do the behavior you desire? What is the collective impact if you were able to get this level of compliance on the watershed? For example if 60% of the people in the watershed over apply fertilizer and at best you can expect to get 20% of these people to stop fertilizing, what impact will this have on lake water quality? (Try to find studies that provide a level of compliance that can be expected, then can figure level of impact) Review your findings. It is possible that a behavior that you identified as important may not yield the impact on water quality that you hoped, so switch to the activity that is most likely to garner the most success based on the numbers.
3. Next identify barriers to the change. What will stand in the way of getting people to do what we would like them to do? Identify the competing messages, the cultural conflicts, and the norms. Back to the fertilizer example, it is possible that one of the barriers is the availability of phosphorus free fertilizer. Or maybe the more is better attitude is in the way. We can speculate as to why someone may not wish to do a soils test before fertilizing or why they may not be using phosphorus free fertilizer, but we really need to also ask them. Thus, focus groups or person-on-the street surveys can help solidify the barriers.
4. Next list the benefits from the new/desirable behavior. For the fertilizer example the benefits may include: protect water quality, if they do a soils test they may

not need to fertilize at all and save time & money. If benefits don't out weigh the barriers, sometimes, need to make keeping the old behavior less desirable (an easy example is smoking – keep raising the cigarette tax so that continuing is expensive, this is not always effective).

5. Now cull down your list and see what you should actually try to do. If the barriers are too great or benefits too few for the target audience then maybe start with an easier one. By using this matrix you take into account all the variables that will effect the success. Don't pick the topic/activity based solely on what may have the largest impact on water quality because maybe what is having the greatest impact, you don't have the means to address. For example Household Hazardous waste (HHW). A campaign that promotes the proper disposal of HHW products but doesn't provide an easy collection/disposal option is doomed to fail because of the disposal barrier not lack of desire or awareness. Therefore, a different behavior should be focused on or the collection barrier needs to be solved first. Also consider if this is a one-time activity or if is repetitive (paving driveway vs. fertilizing the lawn).

Once you have the specific behavior/activity identified the next step is to gather data/information (not necessarily all these steps):

- a. Do literature review (is there existing data out there from focus groups, examples with data of other efforts and their success or lack of?)
- b. Observe the activity
- c. Do your own focus groups on the issue
- d. Survey

Once these steps have been completed, the outreach effort is developed and designed (Note it is only at this point that the tool, whether brochure, door hanger, radio etc. is chosen.). Then the project is piloted to determine if it will be effective. Does this outreach effort accomplish our goals? If not, there is still time to change, improve and tweak the effort before more time and money are invested, and the budget is spent. If dramatic changes are made to the project, a second pilot maybe needed to check the effectiveness. Finally, once you have some level of confidence that your message and project will reach your target audience, implement on the desired scale, and always evaluate.



CUTTING STANDARDS

This past legislative session saw the passage of a new affecting NRPA-PBR. It attempts to make LURC and Organized township clearing standards for development consistent. It does not cover forest harvesting. The law affects only first order streams and is changing the requirement for a PBR for soil disturbance from 100 feet to 75 feet but also adding cutting standards to only permit the thinning of up to 40 % vegetation. The stream standard is based on stream definition or maps. It will take effect in July and Mike Mullen will write a fact sheet. This new standard will need an extensive education and outreach program.

For more information contact Mike Mullen at MDEP 207-287-4728.

New Onsite Wastewater Manual

The new Onsite Wastewater Treatment Systems Manual, EPA 625/R-00/008 is now available on the EPA Web site: <http://www.epa.gov/ORD/NRMRL/Pubs/625R00008/625R00008.pdf>. Please be advised that the file may be too big for your system. If you can't download the manual, please order a printed copy by mailing your name and address to Rosalie Albonetti, USEPA (G-75) 26 W. Martin Luther King Drive, Cincinnati, Ohio 45268. Please tell her you are ordering the OWTS Manual, EPA/625/R-00/008, February, 2002.

The new manual complements the "Design Manual for Onsite Wastewater Treatment and Disposal Systems" (EPA-625/180-012) that was originally published in 1980. The 1980 manual has been a standard reference for onsite/decentralized program managers, designers, installers and others involved in the management and design of these systems. The revision was effected over a five-year period through a team effort which was co-led by USEPA Office of Water and Office of Research and Development. A wide variety of experts in the onsite field contributed ideas and provided technical comments on the many drafts.

The Onsite Wastewater Treatment Systems (OWTS) Manual provides the latest information on onsite system management, siting, design, installation, maintenance, monitoring and replacement. The manual is designed to help users assess and select the best and most suitable sets of technologies and techniques that are appropriate for local site specific conditions. The manual was written

to promote the use of an integrated risk/performance-based approach to OWTS design. Information on OWTS cost and effectiveness has been included.

Questions about the manual should be directed to Rod Frederick of EPA's Nonpoint Source Control Branch at frederick.rod@epa.gov



Volunteer Wetland Monitoring Guide

"Volunteer Wetland Monitoring: An Introduction and Resource Guide"

The Wetlands Division of EPA's Office of Wetlands, Oceans, and Watersheds has released the publication, "Volunteer Wetland Monitoring: An Introduction and Resource Guide" (EPA 843-B-00-001). This booklet provides an introduction to why and how people monitor wetlands and includes a multi-page resource guide to handbooks and manuals that offer detailed information on wetland monitoring for the layperson. While it is not a methods manual, the guide also offers advice on approaching wetland monitoring, most of which is a synthesis of comments received from organizers of wetland monitoring programs across the United States. For more information regarding the publication, contact Kathleen Kutschenreuter (202-566-1383). Copies may be obtained from the Wetlands Help line at 800-832-7828. The publication is also posted at <http://www.epa.gov/owow/wetlands/monitor/volmonitor.html>

Draft Estuary Habitat Restoration Strategy Published

The draft Estuary Habitat Restoration Strategy prepared by the Estuary Habitat Restoration Council in accordance with Title I of Public Law 106-457, the Estuary Restoration Act of 2000, was published in the Federal Register on Friday, May 3, 2002. There will be a comment period of 45 days. Please provide comments in accordance with the instructions in the Federal Register notice. Links to Restoration Strategy in Federal Register located at [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2002_register&docid=02-11074-filed \[text\]](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2002_register&docid=02-11074-filed%5Btext%5D) or [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2002_register&docid=02-11074-filed.pdf \[PDF\]](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2002_register&docid=02-11074-filed.pdf)

(Continued from page 3)

The Workgroup will also continue to work on the other goals identified above. The success of addressing these goals will depend on the amount of input from the various partners. A list of all identified partners within the Workgroup follows. Input is encouraged from the partners listed and others who are interested in addressing the current goals or in identifying additional goals the Workgroup should consider.

Maine Departments of:

- Environmental Protection
- Inland Fisheries and Wildlife
- Transportation
- Marine Resources
- Maine State Planning Office
- Maine Geologic Survey
- Maine Atlantic Salmon Commission
- US Fish and Wildlife Service
- USDA - Natural Resources Conservation Service

For more information on the workgroup of fluvial geomorphology contact any of the following: Jeff Varricione 822-6317, Judy Gates 287-7691, or Todd Janeski 287-1482.

(editors note—this article was written by Dan Baument of USDA, a member of the Workgroup, and edited by Kathy Hoppe)

Road Maintenance Video Set

The "Road Maintenance Video Set" is a five-part video series developed for USDA Forest Service equipment operators. It focuses on environmentally sensitive ways of maintaining low volume roads. (Total Running Time: 1 hour 23 minutes)

Video 1: Forest Roads and the Environment.

A visually pleasing overview of how the road and environment interact with each other. This introduction to maintenance of low volume roads highlights several issues that benefit from proper maintenance activities, including water temperature, fish habitat and aggregate surfacing loss. (Running Time: 16:00)

Video 2: Reading the Traveled Way.

Learn to quickly identify what the road is "saying". This segment focuses on understanding what the condition of the road is and providing insights on how to proactively

avoid costly repairs by properly addressing the road in its current condition. Topics covered in this video are: Rutting, Washboarding, Potholes, Destroyed Road Template, Cracks, Flour, Loss of Surfacing, Excessive Vegetation, Water Bypassing the Surface Cross Drains, Damaged or Filled Cattle guards, Damage to Bridges, Damage to Fords. (Running Time: 17:30)

Video 3: Reading Beyond the Traveled Way.

Properly maintained roads require an understanding of what is happening beyond the road surface. Considering the natural functions before beginning maintenance operations can help minimize significant impacts to the road. Topics include: Gullies, Cracks and Slumps, Roadside Ditch, Ditch Relief Culverts, Live Stream Culverts, Brush Removal. (Running Time: 16:30)

Video 4: Smoothing and Reshaping the Traveled Way.

This video covers detailed step-by-step process used for both smoothing and reshaping a road. Topics include: Crowned Roads, Insloped Roads, Outsloped Roads and Transition Sections. (Running Time: 16:00)

Video 5: Maintaining the Ditch and Surface Cross Drains.

This provides comprehensive instructions for correctly constructing and maintaining ditches, culverts and various surface cross drains. Topics covered include: Heeling the Ditch, Pulling the Ditch, Maintaining Surface Cross Drains, Rolling Drain Dips, Interceptor Bars, Earthen Water Bars and Open-Top Drainage Devices. (Running Time: 18:00)

For copies of the entire set, contact:

USDA Forest Service
San Dimas Technology and Development Center
444 E. Bonita Avenue
San Dimas, CA 91773
Phone: 909.599.1267
Fax: 909.592.2309

Staff Changes at MDEP Watershed Management Section

Karen Hahnel has moved on to work with the invasive plant issue in MDEP's Division of Environmental Assessment. We all wish Karen well in her new position. Please welcome Jessie McDougal who will be filling Karen's position.

Greg Bean started May 14 in Bangor, filling in the Salmon River Watersheds position in Maine DEP's Bangor Office. Welcome Greg!

Smart Boat Tips

CLEAN AND GREEN BOATING

Summer has arrived in Maine. Often when we think of relaxing and staying cool, our thoughts go to on-the-water fun. What's not always clear is that we can actually be doing harm while enjoying ourselves. Everyday choices made by the users of the over 129,000 boats in Maine can dramatically affect even the biggest bodies of water.

Here are some quick facts:

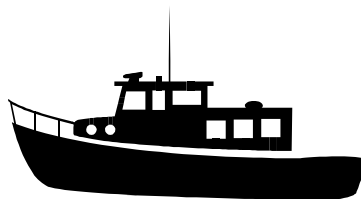
- On average ½ cup of gas is spilled into the water every time a boat is fueled.
- Two cups of gas spilled on a lake will contaminate over 1,000,000 gallons of water, making it unsafe to drink.
- Old two-stroke engines discharge up to 20-25% of the fuel and oil into the water unburned.
- Some of our favorite boating lakes, like Sebago, China, Damariscotta, and Auburn, are also drinking water supplies.
- Invasive plants introduced into lakes and ponds by boats and trailers can ruin boating or other recreation. They can also frustrate fishermen when they get too thick.
- Over the span of just one weekend, the untreated sewage from two people on a boat contains the same amount of bacteria as the treated wastewater from a town of 10,000 people. That same discharge of untreated sewage will contaminate approximately 1,000,000 gallons of water so that any clam flats or mussel beds in the immediate area must be closed. Untreated sewage also contributes to beach closures.
- Trash and debris can kill wildlife.

So what can we, as boat owners, do to avoid being part of these statistics? Here are 10 easy tips:

1. Fill portable gas tanks on land.
2. Use "oil only" absorbent pads around the fill pipes to catch drips. Use the same pads or "bilge pillows" in your bilge to absorb oil or gas that spills inside the boat.
3. Don't top off tanks; this may cause gas to come out the vent line or "burp" back out the fill opening.
4. Keep the engine well tuned and trimmed and replace an old engine with a new four-stroke or direct fuel injection engine. (When replacing an outboard engine, remember that the added expense of the new, high efficiency 4 strokes is offset by far lower fuel and maintenance costs and is better for the environment to boot.)
5. Choose non-toxic boat cleaners and clean the boat away from the water when possible.
6. Use non-toxic anti-freeze, recycle oil and batteries, and carefully clean up all materials used in boat maintenance.
7. Clean all weeds off the boat and trailer before moving them and drain all water out of the boat & outboard cooling system.
8. Use on-shore bathroom facilities or self contained "porta-potties" on lake boats and approved marine sanitation devices on ocean going boats.
9. Pump out marine holding tanks at one of the 72 pumpout stations on the Maine coast or go more than 3 miles offshore.
10. Practice "plus-one" boating; pick up a piece of someone else's trash every time you go out.

Taking ANY of these 10 steps will help keep Maine's waters clean.

This column was submitted by Pam Parker, Maine DEP.



New Book on Riparian Management

The National Research Council (an offshoot of the National Academy of Sciences) has just completed "Riparian Areas: Functions and Strategies for Management." It's not published yet, but you can access it on line for free at the NRC web site, www.nap.edu. You probably can access it directly through the following: <http://www.nap.edu/catalog/10327.html>. A title search tool worked for me.

I've only looked at the overview so far, but it's very positive on the ecological significance of riparian areas. It's four primary conclusions are:

1. Restoration of riparian functions along America's waterbodies should be a national goal.
2. Protection should be the goal for riparian areas in the best ecological condition, while restoration is needed for degraded riparian areas.
3. Patience and persistence in riparian management is needed.
4. Although many riparian areas can be resorted and managed to provide many of their natural functions, they are not immune to the effects of poor management in adjacent uplands.

The book is only 400 page long. There is a 20 page summary section.

Calendar of Events

June 22, 2002. Annual COLA & VLMP Conference. University of Maine at Farmington. FMI contact the VLMP at 225-2070 or vlmp@megalink.net

September 14 & 15, 2002. Maine Rivers 5th Annual Fall Conference. Workshops on the 14th, guided paddle on the Androscoggin on the 15th. Bethel Maine. FMI contact Angie Reed, mainerivers@nrcm.org or 800-2345 x 219.

September 30–October 4, 2002. Tentative date for Course II of Fluvial Geomorphology. FMI contact Jeff Varriccione 822-6317.

October 15, 2002. Northern Maine Children's Water Festival. FMI contact Barb Welch at 287-7682 or barb.welch@state.me.us

October 18, 2002. National Water Monitoring Day. In honor of the 30th anniversary of the CWA. FMI www.yearofcleanwater.org or Annie Philips aphi461@ecy.wa.gov

October 23, 2002. Innovative Outreach Tactics for Watershed Organizations Workshop. Hosted by Maine DEP & NEIWPPC. FMI contact Bill LaFlamme 287-7726 or William.N.Laflamme@state.me.us



Resources Available

Riparian Areas: Functions and Strategies for Management. A product of the National Research Council (an offshoot of the National Academy of Sciences). Available on the web at www.nap.edu

Road Maintenance Video Set. A product of the USDA Forest Service. A five part video series with a combined running time of 1 hour and 23 minutes. For copies contact USDA Forest Service at 909-599-1267.

Volunteer Wetland Monitoring: An Introduction and Resource Guide. Produced by EPA's Wetlands Division Office of Wetlands, Oceans and Watersheds. FMI contact Kathleen Kutschenreuter 202-566-1383.

Web Sites of Interest

Here is a site with lots of watershed education materials: http://www.greenworks.tv/watershed_weekly/index.htm

New web site on NPS created with EPA grant: <http://www.protectingwater.com>.

Maine Rivers has a new web site—check it out: <http://www.mainerivers.org/>

Damariscotta Lake Watershed: <http://www.dlwa.org/index.htm>

This newsletter is prepared especially of those involved in nonpoint source pollution issues. It is funded through an EPA 319 Clean Water Act Grant. If you have any announcements, comments or items for the Nonpoint Source Times, or if you would like to be added to the mailing list, please call or write:

Kathy Hoppe
Maine DEP
1235 Central Drive
Presque Isle, ME 04769
phone: 207/764-0477
fax: 207/764-1507
kathy.m.hoppe@state.me.us

Clean water starts with you!



Maine DEP
1235 Central Drive
Presque Isle, ME 04769